No 61

#29

On

Tracheitis

by

William S Cox

Read March 17th 1823

This Disease is one of comparatively Modern Date, and is commonly said to have been first treated of by Professor Home of Edinburgh about the middle of the last Century. Dr Chapman however mentions that he has seen a Description of it dated at a much earlier Period, and that it is also said to have been described so early as 1749. by an Italian Writer. As regards its Nomenclature it has received a great Variety of Appellations. Those on whom the Task of giving it a Title first devolved were doubtless directed rather by its External Appearances than by any well defined Notions of its Character or Location. hence the unphilosophical Terms of Suffocatio Stridula, Malus Strangulatorius, Asthma Infantum &c much upon the same Principle are the present Popular Names that it bears, as Hives (Heaves) Stuffing, Choaking, Catarrh &c. Every Writer who has treated more largely or more scientifically of a Disease than those who have gone before him considers himself entitled to give it a New Name, according to any new Views he may entertain of its Pathology, thus on the Discovery of its Situation, We have the Term, Cynanche

Trachealis, and Laryngea, and of the Adventitious Membrane, Membranacea, or Polyposa, Conformally to this Privilege. Dr Albers who in 1812 gained half of the Premium offered by Bonaparte for the best Dissertation on Croup, is said to have been the first who called this Disease, Tracheitis, which although not yet adopted by Systematic Writers, & perhaps not in as common use even amongst Medical Men, as some of the preceding Titles, yet is admitted on all hands to be the most Philosophical, as pointing out accurately the Seat of the Disease, and agreeably to some of the Pathological Views at present entertained, its peculiar Character, and at the same time, indicating its proper Place in Nosological Arrangements. Tracheitis is a Disease for the most part incident to Children, upon whom it falls at times with most appalling violence, crushing the Tender Flower & destroying the Parents fond Anticipations. Instances of its attacking Adults, although rare, are not altogether wanting. Cullen remarks that Children who are not yet weaned, seldom get the Complaint, but are more subject to it, the younger they are, after that takes place. Dr Chapman says he has known Instances

of it within the Month. Dr Albers says the same, and both these Gentlemen adduce Gen. Washington as an Example of the Complaint not being exclusively incident to Persons under the Age of Puberty. Some of Dr Coxe's Family, who are now grown up, are also subject to it. There appear to be several Causes, why Croup should be more prevalent amongst Children than Adults. Children are manifestly more prone to Complaints of the Mucous Membranes. Croup is not unfrequently connected with such of the Exanthemata as are apt to occur in Infancy, and further at no after Period in Life, are the Throat and Bosom so much exposed by the Fashion of Dress as it exists throughout Great Britain, the Continent, and United States.

The incomplete State of Development, in which the Glottis exists previous to the Period of Puberty, as evinced by the effeminate Voice, has been adduced as another Reason, why the Liability of Children to this Disease should be greater, but this does not appear to be altogether satisfactory, for if we may judge by the Change of Voice, to the deep & manly Tone of the Expansion of the Glottis, or its Attainment to its perfect Size, this must be a comparatively rapid Process, accomplished

in a year or two and yet the Liability to Croup does not continue equal until the Period of Puberty, but according to the Report of most Writers is greatest before the Fifth Year. The Disease under Consideration is said to be particularly incident to Children of a Florid and Robust Habit, although the Delicate and Valetudinary are likewise the occasional Subjects of its Attack. Several Members of the same Family are sometimes peculiarly liable to it. This in all Probability arises not from Contagion, but an Exposure to the same Exciting Causes or probably from an Hereditary Predisposition. Moist and cold Situations and Contiguity to the Ocean, as also Vicissitudes of Weather are favourable to the Production of Croup. Passing from a heated to a cold Atmosphere, causing thereby a rush of cold Air to the Respiratory Organs, is particularly apt to induce an Attack, as also a full Meal, especially before going to Bed, where there prevails a Predisposition. It is Endemial to some Districts of Country, while others in the immediate vicinity enjoy an almost entire Exemption from it. Dr Chapman is in the habit of mentioning in his Lectures the Sea Port Leith near Edinburgh & Fells Point

near Baltimore as Examples of this Fact. One Attack does not confer Security against a subsequent one, but rather increases the Susceptibility to it. It is most common in the early Part of Spring during the Prevalence of Raw Easterly Winds in this Country

The Symptoms of Tracheitis in an advanced State of the Disease, as laid down by the numerous Authors who have written on the Subject are exceedingly obvious & when present in any considerable number form so prominent a Group, as to enable even an inexperienced Practitioner to form a Correct Diagnosis, for although it is not uniform in its Mode of Attack, yet there are generally to be observed some Features in a Paroxysm of Croup, which readily distinguish it from any other Disease as will presently be noticed. Croup sometimes comes on gradually in the Form of a Common Catarrh, and is ushered in with the usual Symptoms attendant on that Complaint, as Languor, Inaidisposition to Motion, Shivering, alternated with Flushings, Tumefaction of the Face, Coryza &c. and according to Albers not very distinguishable for a day or two from

Catarrh. At other Times it makes its Appearance very abruptly and with the urgent Symptoms of a well marked Paroxysm. These are a dry hoarse Cough, great Difficulty of Breathing and Sense of Suffocation as if Something obstructed the Passage of Air from the Lungs, a Wild Staring Look, indicating great Alarm and Apprehension, unappeasable Complaints, great Restlessness and Propensity to Loco-motion, all appealing powerfully to the Compassionate Feelings of the Practitioner bespeaking his most strenuous Exertions in his Patients Behalf, and insuring (if old enough) a ready Acquiescence in any Measures proposed for his Relief. The Cough above alluded to must be exceedingly peculiar, it has been variously compared by the Persons, who have suffered on this Complaint to the Barking of a Small Hoarse Dog, the Coughing through Muslin, or a Brazen Tube, the Crowing of a Cock, Braying of an Ass, and Forcing a Piston through a Dry Pump. Whatever it may most resemble, it is admitted on all hands to be so remarkable, that a Person who has once heard it, will never be at a loss to recognise it again. Dr Coxe whose Opportunities of witnessing this Disease in his own Family

have been few frequent, in enumerating its Symptoms, lays great Emphasis on this. Cheyne who has written an Essay on this Subject has divided the Symptoms into several Classes denoting the different Stages of the Disease, and the Degree of Danger attendant on each. The Writer of this Essay has never seen a Case of Croup, has had access to but few Books, and has had but few Opportunities of Conversing with Persons familiar with the Complaint; he does not therefore presume to offer an Opinion, as to the Accuracy of this Arrangement, but his Impression derived from these meagre Sources is, that in a Disease so various and fitful in its Attacks, a Train of Symptoms, so Consecutive in Order and Synchronous in Association, would not often be met with in Actual Practice.

The Pathology of this Disease being yet a Matter of Controversy, little will be said on the Subject. The Contest at present turns on this Point, viz — Whether the Disease be Inflammatory or Spasmodic, and the Disputants on each side, refer to Dissections, as illustrating their Favorite Doctrines. The Advocates for the

Inflammatory Character of Croup, adduce in Evidence of the Correctness of their Views, the Appearances of Inflammation in Examinations for that Purpose after Death, and particularly the Adventitious Membrane, which has attracted so much Attention, and for the Removal of which, even a Surgical Operation has been resorted to. While on the other hand those whose Experience in Dissections in this Disease, has not furnished them with a View of this Membranous Production, or even of any Appearance of Inflammation whatever, naturally attribute the Train of Symptoms they have observed to Spasm. As has just been hinted Post Mortem Examinations sometimes present no Signs of Inflammation at all, at others various Grades of it, from a Slight Blush, to that Stage, in which an Exudation of Coagulable Lymph takes place, between the Coats of the Trachea, thickening its Parieties and thereby Straitening the Passage of Air; or upon its Internal Surface, producing the Membrane. May not the natural Coat of Mucus, lining the Respiratory Tube at times after Death have been of sufficient Tenacity, to have allowed of Detachment ~~after~~ without Mutilation, and

have been mistaken for the Preternatural Membrane and recorded as such. It is not meant by this Query to imply any disbelief in the Existence of the Membrane, for independently of one being exhibited at the University, the Authority is entirely too respectable to justify any Incredulity, but in an Estimate of the Frequency of its Occurrence, it ought to be kept in mind that it is a Striking Circumstance and one calculated, to gratify the Love of the Marvellous, with which the Sober Sciences are sometimes tinctured The Writer does not hazard an Opinion on the Comparative merit of these Conflicting Theories, but thinks Dr Chapman goes far towards reconciling them by his Explanation, that the Complaint when attacking suddenly is purely Spasmodic, as Inflammation is the Work of Time, & an altered Action of the Vessels of a Part

Fortunately these Discrepancies of Opinion, do not carry with them into Actual Practice, any Evil Consequences, Venesection, that Powerful Resolvent of Spasm, is likewise the most Efficient Weapon with which to Combat Inflammation and this, with the whole Antiphlogistic Regimen, forms the Plan of Treatment proper to be pursued in a Severe attack of

Tracheitis. No one of the Articles belonging to the now almost exploded Class of Antispasmodics, as Musk, Castor & Assafoetida, can be at all relied on, in the Management of this Disease. The Course of Treatment, now generally adopted by Skilful Practitioners is this. In the early Part of the Disease, an Emetic is administered of Ipecacuanha or Tartar Emetic, a Preference being given by different Physicians to one or the other Article. Tartar Emetic in Febrile Diseases however, is generally preferred, not only on account of the Activity and Certainty of its Operation, but as exercising a Specific Effect not referrible to its mere Emetic Power. The Patient is also to be placed in the Warm Bath, this is frequently sufficient to subdue the Complaint without resorting to any other Measures. If it not, Recourse must be had to Venesection, it is recommended to bleed copiously the first time, in order to obviate the Necessity of a Recurrence to it. An Obstinate Attack however occasionally requires a Repetition of all these Processes, with the addition of Topical Depletion by the Application of Leeches, Cups or Blisters as nearly as possible to the Seat of the Complaint. These with

the Subsequent Administration of Mercurial Purges, and occa-
-sionally Expectorants to remove any Remains of Hoarseness,
Constitute the Method of Treatment at present most appro-
-ved of. In a Review of the Remedies just mentioned, it
will be observed, that they are equally Efficacious, in resolving
Spasm or reducing Inflammation, whichever Theory be adopted
The Effect of an Emetic, besides discharging the Contents
of the Stomach, and by forcible Expulsion of Air through
the Windpipe to remove any Obstruction that may exist there,
is also to produce great and universal Relaxation. The Warm-
-Bath besides being, by its Sweating Effect, one of the Auxili-
-aries to the Antiphlogistic Regimen, exercises an Anti-
-spasmodic Power by its Tendency to produce an Equable
Circulation and relax Constriction, and Blood-letting by
withdrawing directly a Portion of Fluid from the Circulating
Vessels, is the most Expeditious and effectual Mean of reducing
Inordinate Vascular Action, which is the Proximate Cause of
the Phenomena of Inflammation, and when carried to Syn-
-cope, is beyond every other, the Measure best calculated to resolve
Spasm. Croup, when neglected for some hours, or if feebly

and incaciously managed, is apt to extend itself to the Bronchia causing a great accumulation of mucus, or else to the Lungs producing an Engorged State of those Organs. The Symptoms in this Stage of the Disease, differ considerally from those in the earlier: There is a Purple, circumscribed Flush on the Cheeks, or the Complexion is mottled, the Nails are of a Livid Colour, the Eyes are prominent and Blood shot, the Pupils are dilated, the Countenance Wild and ghastly, Pulse irregular, Respiration laborious, or else the Patient breathing with tolerable Ease in Situations least favourable, apparently to Respiration, many of these Symptoms, indicating clearly, a disturbed Circulation and deficient Supply of Oxygenated Blood. That the Practitioner may adopt that Course best suited to the Exigency of the Case, it is of Importance that he ascertain in which of these Conditions his Patient is, as the Treatment is not the same in each Case, When the Difficulty of Breathing is owing to Collections of Mucus or Lymph obstructing the Respiratory Passages, there is an Expectoration of Such Matter, or Some Efforts to discharge

it, with a weak Pulse and cold clammy Surface. In an Engaged Condition of the Lungs, however severe the Difficulty of Breathing, there is but little Discharge of Phlegm, and no Wheezing, which is generally observed in the first Case, the Respiration panting and laborious, and the Pulse full and easily compressible, although irregular. To rid the Lungs of their Oppressive Load of Mucus in the first of these States is urgently demanded. For this Purpose, with the Aid of the Warm Bath to restore an Equable Circulation, Emetics should be resorted to, and as there is here a Deficiency of Susceptibility to the Operation of Medicines, an Active One ought to be made use of. A Combination of Tartarized Antimony and Ipecacuanha is one of the most certain in its Operation. The Sulphate of Zinc, and the Juice of Garlic or Onion, also answer the Purpose. In the Second Condition, viz. Where there is a Congestion of the Lungs, in addition to the Means just mentioned, it is directed to detract Small Quantities of Blood, vigilantly observing its Effects on the System, and renewing it from time to time, if not cautioned to desist by Exhaustion of the Patient. In Case of absolute Prohibition of the Use of the Lancet

Leeches or Cups, with the Vesicating Applications are to be substituted. The Circumstance of the Lungs appropriating to themselves so large a Proportion of the Blood of the Whole Body, suggests the Propriety of Caution in drawing from the General Circulation. The Cure is to be confirmed by the Use of Expectorants, as the Antimonial Wine, Syrup of Squills, or Decoct: of Polygala Senega; or what contains the Active Ingredients of all three Doct: Coxe's Hive Syrup, indeed this is said to be a valuable Article in the Early Stage of Croup, as when taken in large Doses, it unites in itself, the Properties of an Emetic, Cathartic & Sudorific.

Nothing as yet has been said of the Treatment of this Disease, with Calomel exclusively, from the Opportunities of witnessing the almost invariable Emetic, as well as Cathartic Effect of Calomel, upon his own Children, the Writer would be induced to think this most Important Article of the Materia Medica, competent to the Cure of many Cases of Croup. Professor Hamilton who appears thoroughly to understand & duly to appreciate the Universality of Operation which this Medicine displays, considers himself the Author

of the Practice and is consequently much attached to it and in his Hands, it has proved eminently successful, but it probably never will acquire firm Footing in this Hemisphere, where in the frightful Forms in which it makes its Appearance, a more rigorous System of Practice prevails, and which probably will never be superseded by any other. The Operation of Bronchotomy which in the Case of the Removal of Foreign Bodies from the Trachea places the Surgical Art on so proud an Eminence, appears to be distrustfully spoken of in the Removal of the Membrane sometimes met with in this Disease. The Objections to a Recourse to it are, the Difficulty of ascertaining the Degree of its Tenacity, its Situation, or even its Existence and the extreme Reluctance on the Part of Parents & Friends to submit to so desperate an Expedient, untill the Subject of it was no longer in a Condition to benefit by its Adoption

For having labored largely in this Essay & for having offered nothing Original, no Apology is considered necessary, but for the numerous Inaccuracies & Defects in its Phraseology, one may be expected, such as one the Writer hopes to find in a First Attempt at & an entire Unacquaintance with the Laws of Literary Composition.

Doct. Gibson